

REMARKS

Applicants, by the amendments presented above, have made a concerted effort to present claims which more clearly define over the prior art of record, and thus to place this case in condition for allowance.

Currently, claims 1-16, 33 and 36-59 are pending. Claims 1-12 have been examined. Claims 48-59 were added in this Amendment. Claims 17-32 have been canceled and are being filed in a divisional application. Claims 13-16, 33 and 36-47 have been withdrawn from consideration.

Drawing Objection, and Claim Rejections under 35 U.S.C. §112, first paragraph

Claims 1-12 were rejected under 35 U.S.C. §112, first paragraph. The Examiner contends that the specification as originally filed does not provide support for the claimed control means which receives inputs, estimates a rate of condensation and then controls the heating means based upon that rate. In addition, the drawings were objected to because the control means is allegedly not shown.

With regard to the rejection under 35 U.S.C. §112, first paragraph, Applicants request reconsideration and withdrawal of this rejection. Applicants respectfully submit that the subject matter of claims 1-12 is disclosed in the specification. More specifically, the specification states on page 6, lines 7-13, a “respiratory humidification system, comprised of ... a heater base [3] which heats the humidification chamber 1 and provides measurement and control functions.” As is specified on page 6, lines 16-23, “The system is controlled using sensors located at positions 7 and 8 - typically temperature probes. Dry gases ... are heated and humidified ... [by] hot water 6 ... heated by heater plate 9 and the amount of heating is

controlled so that the gas reaches a predetermined temperature at exit port 10. This temperature is measured by sensor 7. Therefore the humidification chamber 1 acts to heat and humidify the medical gases so that they are substantially saturated at the output of chamber 1, and are at a predetermined temperature.” As is specified on page 6, lines 27-29, “The amount of heating applied to heater 12 is regulated so that the gas reaches a predetermined temperature at gas outlet 5, as measured by sensor 8. The control temperature at sensor 8 is usually higher than the controlled temperature at sensor 7.”

In addition, page 8, line 30 through page 9, line 7 specifies “The difference in absolute humidity between sensors 7 and 8 allows the [heater base 3] to determine whether condensation is occurring between the two points ... If the absolute humidity at sensor 7 is greater than at sensor 8, then the difference shows the rate of condensation that is occurring. One control strategy would be to control the amount of heating provided to heater 12 so the absolute humidity difference is reduced to zero”.

Applicants submit that Figure 1 depicts the heater base 3 providing control functions both over the heater plate 9 in the humidification chamber and the conduit heater 12. This control function is based off sensors 7 and 8 which may be temperature sensors as disclosed on page 6 or alternatively humidity sensors as disclosed on page 7 and 8. Applicants submit that it is clear from the specification on pages 7 and 8 that these control functions may include determining a rate of condensation based off any difference in absolute humidity between sensor 7 and sensor 8 and controlling the conduit heater 12 to reduce the difference to zero.

Applicants submit that one skilled in the art reading this would appreciate a range of apparatus would be appropriate for achieving this control. By way of example, only heater base 3 could include a controller or microprocessor to achieve the described method.

While Applicants are of the position that the current Figure 1 adequately describes and illustrates the control means, the relevant inputs and the control functions, Applicants submit Figure 13 which provides this in an alternative format. Applicants submit that no new matter has been included by the addition of this Figure. Therefore, Applicants request withdrawal of the objection to the drawings.

Reconsideration and allowance of claims 1-12 is requested.

Newly-Presented Claims 48-59

Claims 48-59 were added in this Amendment.

Claims 48-58 relate to the method of humidifying the gases. These claims do not require the controller of claim 1. Applicants submit that these claims are allowable over the prior art of record.

Claim 59 relates to sensing and controlling humidity at the chamber. Applicants submit that the prior art of record does not disclose all of the limitations of claim 59. Entry, consideration and allowance of claim 59 is requested.

Applicants submit that no further searching will be required.

Information Disclosure Statement

Applicants submitted an Information Disclosure Statement, copy enclosed, on July 18, 2003. A copy of the return post card is enclosed indicating that the Information Disclosure Statement was received. Applicants request consideration of this Information Disclosure Statement and return of the initialed form PTO-1449.

In addition, Applicants have concurrently submitted herewith an Information Disclosure Statement to cite the references in Search Reports that issued in a corresponding

European application. Consideration of this Information Disclosure Statement and return of the initialed form PTO-1449 is requested.

In view of the above Amendments and Remarks, Applicants respectfully submit that the claims of the application are allowable. Should the Examiner have any questions regarding this Amendment, the Examiner is invited to contact one of the undersigned attorneys at (312) 704-1890.

Respectfully submitted,

Dated: Oct 14, 2003

By:



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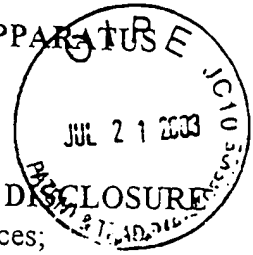


Case 92
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July 18, 2003
RAB/LLP/tes

Applicant: Seakins et al.
For: BREATHING ASSISTANCE APPARATUS
Serial No.: 09/808,567
Filed: March 14, 2001



Enclosed: SUPPLEMENTAL INFORMATION DISCLOSURE
STATEMENT; Form PTO-1449; 4 cited references;
Certificate of Mailing; and this postcard.

Receipt Acknowledged: _____ F/U: 08/18/03

HON. COMMISSIONER FOR PATENTS:

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attorneys of record.

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